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• ACCUMULATION OF ORGANOCHLORINE INSECTICIDES BY ATLANTIC MENHADEN, *Brevoortia tyrannus,* FROM THE NEWPORT RIVER ESTUARY. *Stanley M. Warlen.* Organochlorine insecticide residues were measured in young-of-the-year Atlantic menhaden, *Brevoortia tyrannus,* sampled during their residency in the Newport River estuary in North Carolina. Water, bottom sediment, and seston were concurrently sampled to determine the source of residues to menhaden.

In 1971 and 1972, DDT (DDT plus derivatives, DDD and DDE) was found most frequently and occurred in higher amounts than other insecticide residues detected both in menhaden and in their food, the seston. Dieldrin was found nearly as often as DDT but at lower concentrations. Only trace amounts of DDT were present in the sediments.

Menhaden concentrate DDT and dieldrin in direct relation to the time they spend in the estuary. Body burdens (concentration × dry weight) of DDT and dieldrin in larvae increased at significantly greater ($p < .05$) rates than in juvenile menhaden. DDT and dieldrin body burdens are both highly correlated ($r = .99$) with increases in menhaden dry weight. During their residency in the Newport River estuary in 1971, menhaden increased both their DDT and dieldrin concentrations by a factor of four times while their body burden of DDT and dieldrin each increased over 3,750 times. The food of menhaden is apparently the source of these accumulated residues in menhaden.